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ENCLOSURES *(check all that apply)*

- [ ] Fee Transmittal Form
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- [ ] Amendment / Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
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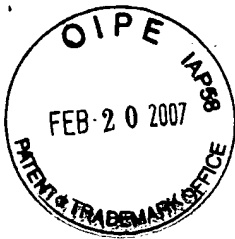
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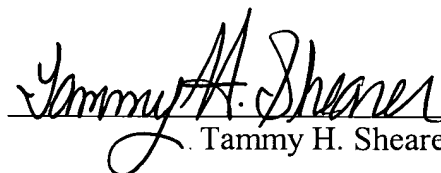
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

SUPPLEMENTAL APPEAL BRIEF

Sir:

This Supplemental Appeal Brief is filed under 37 C.F.R. § 41.37 in connection with the final rejection of claims 79-105 in the *Final Office Action* mailed July 28, 2005 and is filed in response to the Notification of Non-Compliant Appeal Brief (37 CFR 41.37) mailed February 5, 2007 in which the Examiner claimed that the Appeal Brief filed on January 30, 2006 was defective for failure to comply with one or more provisions of 37 CFR 41.37, namely:

> "8.   The brief does not contain copies of the evidence submitted under 37 CFR 1.130, 1.131, or 1.132 or of any other evidence entered by the examiner **and relied upon the appellant in the appeal,** along with a statement setting forth where in the record that evidence was entered by the examiner, as an appendix thereto (37 CFR 41.37(c)(1)(ix))." and

> "9.   The brief does not contain copies of the decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief as an appendix thereto (37 CFR 41.37(c)(l)(x))."

Appendices have been added for each of these two provisions. No evidence has been entered by the examiner and relied upon by the appellant in the appeal, and no decisions have been rendered by a court or by the Board in this case. The appendices are presented herewith and labeled appropriately.

Real Party in Interest

The real party in interest in the present application is the assignee, Immersion Corporation, 801 Fox Lane, San Jose, California 95131 (hereinafter "Appellant").

Related Appeals and Interferences

The Appellant and the Appellant's legal representative know of no related appeals or interferences that will directly affect, will be directly affected by, or have a bearing on the Board's decision in this appeal.

Status of Claims

Claims 79-105 stand finally rejected and are the subject of this appeal. This appeal concerns a utility application filed on March 5, 2002. The Appellant canceled claims 1-78 during the prosecution of the parent application. The Appellant added claims 79-105 during the prosecution of the patent application. Claims 79-105 were finally rejected in an *Office Action* mailed July 28, 2005.

Status of Amendments

Appellant did not seek to amend the application after final rejection.

Summary of Claimed Subject Matter

The Appellant's patent application claims system and methods for designing force feedback effects and providing force feedback to a user over a network. *See, e.g.,* Abstract. Illustrative embodiments of the invention are described in the Abstract:

> Force feedback is provided to a user of a client computer receiving
> information such as a web page over a network such as the World Wide
> Web from a server machine. The client machine has a force feedback
> interface device through which the user experiences physical force
> feedback. The web page may include force feedback information to

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provide authored force effects. Force feedback is correlated to web page objects by a force feedback program running on the client and based on input information from the interface device, the web page objects, and the force feedback information. Generic force effects can also be provided, which are applied uniformly at the client machine to all web page objects of a particular type as defined by user preferences at the client machine. A web page authoring interface is also described that includes the ability to add force sensations to a web page. The user may assign force effects to web page objects and immediately feel how the web page will feel to an end user. A web page is output by the interface, including force information to provide the force effects at a client. The authoring tool can include or access a force design interface for creating or modifying force effects.

The patent application includes four independent claims, 79, 91, 95, and 102. Claims 79 and 91 are method claims. Claims 95 and 102 are computer-readable medium claims that claim subject matter corresponding to the subject matter of claims 79 and 91, respectively. Claims 80-90, 92-94, 96-101, and 103-105 depend from claims 79, 91, 95, and 102, respectively.

In claim 79, Appellant claims:

A method comprising:

receiving an input signal from a network, the input signal comprising an embedded force feedback command;

extracting the force feedback command from the input signal; and

generating an output signal associated with the force feedback command.

The input signal may comprise, for example, a web page or a TCP/IP packet. *See, e.g. Specification,* ¶¶ [0044] and [0155]. "[I]n one embodiment, instructions are provided

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in the received web page which define an authored force effect for the plug-in. It essentially embeds function calls which are handled by the web browser." *Specification,* ¶ [0156], lines 1-13. The force feedback command may be contained in an HTML "<EMBED>" tag. *See, e.g. Specification,* ¶ [0157]. "In the <EMBED. . .> specification, the size of the button can be specified, the initial state of the button ('up' or 'down'), and the force effect associated with the button, such as 'vibration.'" *Specification,* ¶ [0157], lines 1-4.

The force feedback command may be extracted by an application executing on a client or by a plug-in. For example,

> In a first line of the <EMBED . . . > command, the force button object can
> be defined by a[n] 'IFF' extension file, namely 'FORCEBUTTON.IFF.' If
> the suffix of the specified file is a known, standard suffix type, the call is
> executed directly by the web browser. If, however, the suffix (.IFF in this
> instance) is not a standard feature of the web browser, the browser will
> first took for a "plug-in" to implement this feature and, if a suitable plug-in
> is not found, it will look for application programs implementing this
> feature."

Specification, ¶ [0156], lines 8-20.

"A 'trigger' for the force effect can be specified." *Specification,* ¶ [0157], lines 7-8. The trigger causes an output signal associated with the force feedback command to be generated. For instance, in one embodiment, "[t]he function BTJTTONSTATE determines whether a button or switch of the force feedback device is in the desired state to trigger the force object event (e.g., a button event in this example)." *Id.* at 13-16. And "[o]ther force effects, triggers and parameters can also be associated with the force object." *Id.* at 18-19. "For example, a force (such as a vibration) can be triggered if the

pointing icon is moved a predetermined velocity or within a predefined range of velocities within the force object." *Id.* at 19-22.

Claims 80-85 and 90 depend from claim 79 and recite various additional steps. Claim 86 also depends from claim 79. In claim 86, Appellant claims:

> The method of claim 79, wherein the force feedback command comprises a first force feedback command and further comprising:
>> receiving the output signal; and
>> overriding the first force feedback command with a second force feedback command.

Appellant's application describes examples of such a method in describing authored and generic effects as claimed in claims 87 and 88, which both depend from claim 86. For instance, "a web page can include force feedback information for authored effects (described below), and generic effects can also be applied to web page objects not having any authored effects associated with them, or to override particular authored effects as desired by the user of the client." *Specification,* ¶ [0085], lines 15-20. In such an embodiment, the output signal is based on the "authored effect," the effect that is embedded in the page, and the browser overrides the authored effect with a generic effect specified by the user. *See Specification,* ¶¶ [0085]-[0087].

In claim 89, Appellant claims "[t]he method of claim 86, further comprising generating a force feedback effect associated with the second force feedback command." When the authored effect is overridden by the generic effect, the generic effect is then output on the force feedback device attached to the client.

Claims 95 through 101 are computer-readable medium claims corresponding to method claims 79-90.

In claim 91, Appellant claims:

A method comprising:

    receiving a force feedback command;

    embedding the force feedback command in an output signal; and

    transmitting the output signal to a network.

Embodiments of such a method are described in relation to a force-enabled authoring tool and web server. *See Specification,* ¶¶ [0163]-[0203]. "The author may type text directly into the editor as it will appear, and can place images and other web objects using GUI tools." *Specification,* ¶ [0167], lines 8-10. "FIG. 17b illustrates another example of providing options for the user to assign a force effect for a web page object." *Specification,* ¶ [0172], lines 1-3. "The HTML editor of the present invention not only is a WYSIWYG [What You See Is What You Get] editor for visual design of web pages; it is also a WYSIWYF (What You See Is What You Feel) editor, meaning the author immediately sees and feels exactly how the web page will feel to others as the author edits the page." *Specification,* ¶ [0168], lines 8-10. "The force-enabled authoring tool preferably automatically generates this [HTML] code when the user wishes to save the created web page." Specification, page 43, lines 24-25. *Specification,* ¶ [0177], lines 5-7. In other words, when the author or user specifies a force feedback command, the force feedback command is received by the force-enabled authoring tool and embedded in a web page.

In such an embodiment, "[t]he application 520 outputs a force-enabled HTML file 523 which can be stored on a server and downloaded by a client machine." *Specification,* ¶ [0177], lines 1-3. When a user subsequently downloads the web page, the web page is part of an output signal sent to a client.

Claims 92-94 depend from claim 91 and recite various additional steps. Claims 102-105 are computer-readable medium claims corresponding to method claims 91-94.

Grounds of Rejection to be Reviewed on Appeal

The grounds of rejection to be reviewed in this appeal are:

1. Rejection of claims 79-105 under 35 U.S.C. §112, first paragraph; and

2. Rejection of claims 79-105 under 35 U.S.C. §112, second paragraph.

Argument

Ground 1: Rejection of claims 79-105 under 35 U.S.C. §112, first paragraph.

The Examiner erred in rejecting claims 79-105 under 35 U.S.C. §112, first paragraph. 35 U.S.C. §112, first paragraph states, "[t]he specification shall contain a written description...in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains...to make and use the same." The claimed invention must be enabled so that one skilled in the art can make and use the invention without undue experimentation. *In re Wands*, 858 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988). But a patent application need not disclose what is well known in the art. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991). Further, "[t]he written description requirement does not require the Appellant 'to describe exactly the subject matter claimed, [instead] the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed.'" *Union Oil Co. of Cal. v. Atl. Richfield Co.*, 208 F.3d 989,998 (Fed. Cir. 2000) (citations omitted).

Claims 79 and 95

The Examiner rejects claims 79 and 95 "for reciting, 'receiving an input signal from a network, the input signal comprising an embedded force feedback command,' and that the specification includes no enabling support." *Office Action*, page 2. Respectfully, "receiving an input signal from a network, the input signal comprising an embedded force feedback command" is enabled in the application.

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One of ordinary skill in the networking art understands that computers utilize signals to transfer information. For example, in the *Microsoft Computer Dictionary*, a signal is defined as "any electrical quantity, such as voltage, current, or frequency, that can be used to transmit information." *Microsoft Computer Dictionary – 5th Edition*, Microsoft Press (2002). The specification states, for example, "[i]n one embodiment, instructions are provided in the received web page which define an authored force effect for the plug-in. It essentially embeds function calls which are handled by the web browser." *Specification*, ¶ [0156], lines 1-13. In such an embodiment, the web page is the input signal received by a client, and the force feedback command is embedded in the web page. Thus, "receiving an input signal from a network, the input signal comprising an embedded force feedback command" is enabled in the application. Appellant respectfully submits that the rejection of claims 79 and 95 is improper and should not be sustained.

Claims 91 and 102

The *Office Action* states, "Examiner is unable to find enabling support for a receiving step of claims 91 and 102." *Office Action*, page 2. Claims 91 and 102 recite "receiving a force feedback command." Respectfully, the receiving step of claims 91 and 102 is supported by the specification.

The specification describes a force-enabled authoring tool. *See Specification*, ¶¶ [0163]-[0203]. As discussed above, when the author or user specifies a force feedback command, the force feedback command is received by the force-enabled authoring tool and embedded in a web page. Thus "receiving a force feedback command" is enabled in the application. Appellant respectfully submits that the rejection of claims 91 and 102 is improper and should not be sustained.

Claims 86 and 97

The *Office Action* states that the Examiner is unable to find support in the specification for "overriding the first force feedback command with a second force feedback command" as claimed in claims 86 and 97. *See Office Action,* page 3. Respectfully, "overriding the first force feedback command with a second force feedback command" is supported by the specification.

According to the specification, "a web page can include force feedback information for authored effects (described below), and generic effects can also be applied to web page objects not having any authored effects associated with them, or **to override particular authored effects** as desired by the user of the client." *Specification,* ¶ [0085], lines 15-20 (emphasis added). In such an embodiment, the output signal is based on the "authored effect," the effect that is embedded in the page, and the browser overrides the authored effect with a generic effect specified by the user. *See Specification,* ¶¶ [0085]-[0087].

In the described embodiment, the authored force feedback effect comprises the first force feedback command; the generic effect command comprises the second force feedback command. Thus "overriding the first force feedback command with a second force feedback command" is enabled in the application. Appellant respectfully submits that the rejection of claims 86 and 97 is improper and should not be sustained.

The Examiner states that "[o]ne of ordinary skill would not understand the 'effect' as 'force feedback command.'" *Office Action,* page 3. However, the force feedback command and force feedback effect are related throughout the specification. The force feedback command is used to cause the force feedback effect. For instance, "[I]f the pointer icon on the display device 64 is at a position (or time) that correlates to a desired force feedback to the user 52, the microprocessor 36 sends a force feedback command to the local microprocessor 68 over the serial port connection 88." *Specification,* ¶ [0052], lines 1-5. "The local microprocessor 68 parses this force feedback command and sends

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signals to the actuator interface 80 which causes the actuator 84 to create forces F on object 76, which are experienced by the user 52 as indicated at 60." *Id.* at lines 5-9. The described "forces F" are the effect experienced by the user. Thus, one of ordinary skill in the art would understand the "effect" as associated with the "force feedback command."

Claims 89 and 100

The *Office Action* states that the Examiner is unable to find support in the specification for "second force feedback command" as claimed in claims 89 and 100. In claims 89 and 100, Appellant claims, "generating a force feedback effect associated with the second force feedback command." In the specification, Appellant describes generating a force feedback effect on a manipulandum in response to receiving a force feedback command. For example:

> In addition, computer 48 and/or interface 100 provide force feedback
> signals to actuators coupled to interface 100, and the actuators generate
> forces on members of the mechanical portion of the interface 100 to
> provide forces on mouse 36 in provided or desired degrees of freedom.

Specification, ¶ [0058], lines 3-7.

In the embodiment described above in relation to claims 86 and 97, the second force feedback command comprises the generic force feedback command. The generic force feedback command is associated with a particular force feedback effect. An actuator is able to generate an effect in response to receiving a force feedback signal. One of skill in the art would understand the use of the terms "first" and "second." Thus, "generating a force feedback effect associated with the second force feedback command" is enabled. Appellant respectfully submits that the rejection of claims 89 and 100 is improper and should not be sustained.

Dependent Claims

Dependent claims 80-85, 87, 88, 90, 92-94, 96, 98, 99, and 102-105 are not addressed specifically in the Office Action. However, each of these claims depends from one of the claims discussed above and is supported in the specification. Accordingly, Appellant respectfully requests that the rejection of these dependent claims is improper and should not be sustained.

Ground 2: Rejection of claims 79-105 under 35 U.S.C. §112, second paragraph.

The Examiner erred in rejecting claims 79-105 under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Appellant regards as the invention. "The test for definiteness under 35 U.S.C. 112, second paragraph, is whether 'those skilled in the art would understand what is claimed when the claim is read in light of the specification.'" MPEP § 2173.02, citing *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). Respectfully, one of skill in the art would understand what is claimed when the claims are read in light of the specification.

The prior non-final *Office Action* stated that claims 79, 80, 85, 89, 92, 95, and 103 are indefinite because they recite the phrase "associated with," the nature of which, according to the *Office Action*, cannot be ascertained clearly. *See Office Action mailed November 24, 2004*, pages 3-4. Respectfully, the use of the phrase "associated with" does not render claims 79-105 indefinite under 35 U.S.C. § 112, paragraph 2.

In claim 79, Appellant claims a method comprising "generating an output signal associated with the force feedback command." The output signal is related to the force feedback command. For example, the output signal may be "operable to cause a manipulandum to output a force" as claimed in claim 82 or to "cause a force to be output in a simulation device" as claimed in claim 83.

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Those skilled in the art would understand what is claimed when the phrase "associated with" is used in the claims when the claim is read in light of the specification. The term "associated with" is used throughout the specification. For example, in the Summary of the Invention, the specification states,

> In a different embodiment, generic force effects are implemented. The client determines which web page objects are **force web page objects to be associated with at least one generic force effect**, where the force web page objects are of a predefined type. A generic force effect is assigned to each type of web page object as defined by effect information derived from the client machine. Generic force effects are output when a user-controlled cursor interacts with a force web page object.

Specification, ¶ [0015], lines 1-14. Further, "[w]hen the web page is received by the client computer, the force-enabling code implemented by the client associates the forces from the preferences file (or default forces) to each graphical object and outputs the forces as appropriate." *Specification,* ¶ [0015], lines 1-14. In other words, the output signal – the force or actuator signal – is associated with the force feedback command. In each instance in the claims, the phrase "associated with" denotes a relationship between two things, e.g., an object or command and a force effect.

Thus, claims 79-105 are not indefinite, and Appellant respectfully submits that the rejection of these claims under 35 U.S.C. § 112, second paragraph is improper and should not be maintained.

Dependent Claims

Claims 81-84, 86-88, 90, 91, 93, 94, 96-102, 104, and 105 are not addressed specifically in the final *Office Action*. However, each of these claims is clearly supported in the specification. Accordingly, Appellant respectfully requests that the rejection of these claims is improper and should not be sustained.
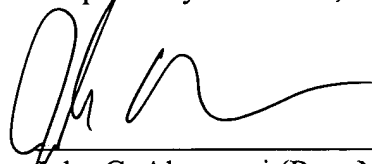
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Conclusion

In view of the foregoing, it is submitted that the rejections of claims 79-105 is improper and should not be sustained. Therefore, a reversal of the Final Rejection of the Examiner is respectfully requested.

Respectfully submitted,

Dated: February 20, 2007

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Appendix A - Claims

79. A method comprising:

    receiving an input signal from a network, the input signal comprising an embedded force feedback command;

    extracting the force feedback command from the input signal; and

    generating an output signal associated with the force feedback command.

80. The method of claim 79, wherein the input signal is associated with at least one of a web page, a java applet, and an ActiveX control.

81. The method of claim 79, wherein the network comprises the Internet.

82. The method of claim 79, wherein the output signal is operable to cause a manipulandum to output a force.

83. The method of claim 79, wherein the output signal is operable to cause a force to be output in a simulation device comprising a processor.

84. The method of claim 79, wherein the input signal is a first input signal and further comprising receiving a second input signal from a manipulandum.

85. The method of claim 84, wherein the output signal is further associated with the second input signal.

86. The method of claim 79, wherein the force feedback command comprises a first force feedback command and further comprising:

    receiving the output signal; and

    overriding the first force feedback command with a second force feedback command.

87. The method of claim 86, wherein the first force feedback command comprises an authored force feedback command.

88. The method of claim 86, wherein the second force feedback command comprises a generic force feedback command.

89. The method of claim 86, further comprising generating a force feedback effect associated with the second force feedback command.

90. The method of claim 79, further comprising:

receiving the output signal; and

generating a force feedback effect.

91. A method comprising:

receiving a force feedback command;

embedding the force feedback command in an output signal; and

transmitting the output signal to a network.

92. The method of claim 91, wherein the output signal is associated with at least one of a web page, a java applet, and an ActiveX control.

93. The method of claim 91, wherein the network comprises the Internet.

94. The method of claim 91, wherein the force feedback command comprises an authored force feedback command.

95. A computer-readable medium storing instructions to cause a processor to:

receive an input signal from a network, the input signal comprising an embedded force feedback command;

extract the force feedback command from the input signal; and

generate an output signal associated with the force feedback command.

96. The computer-readable medium of claim 95, wherein the input signal is a first input signal and further comprising instructions to receive a second input signal from a manipulandum.

97. The computer-readable medium of claim 95, wherein the force feedback command comprises a first force feedback command and further comprising instructions to:

receive the output signal; and

override the first force feedback command with a second force feedback command.

98. The computer-readable medium of claim 97, wherein the first force feedback command comprises an authored force feedback command.

99. The computer-readable medium of claim 97, wherein the second force feedback command comprises a generic force feedback command.

100. The computer-readable medium of claim 97, further comprising instructions to generate a force feedback effect associated with the second force feedback command.

101. The computer-readable medium of claim 95, further comprising instructions to:

receive the output signal; and

generate a force feedback effect.

102. A computer-readable medium storing instructions to cause a processor to:

receive a force feedback command;

embed the force feedback command in an output signal; and

transmit the output signal to a network.

103. The computer-readable medium of claim 102, wherein the output signal is associated with at least one of a web page, a java applet, and an ActiveX control.

104. The computer-readable medium of claim 102, wherein the network comprises the Internet.

105. The computer-readable medium of claim 102, wherein the force feedback command comprises an authored force feedback command.

Appendix B – Evidence

None.

Appendix C – Related Proceedings

None.